CLEAN COPY OF THE CLAIMS:

A medical device adapted for use with cyclical application of fluid pressure to apply said pressure to a human foot said, medical device comprising:

an interior elastic fabric sheet for engaging a human foot; and

an exterior fabric sheet joined with said interior sheet, the exterior sheet being less extensible than the interior fabric sheet, the interior sheet and the exterior sheet together forming a foot wrap, wherein:

said foot wrap encompasses an inflatable bladder within a region between and including the interior sheet and the exterior sheet, the inflatable bladder being disposed to apply pressure to the sole of a human foot; and

the elasticity of said interior sheet functioning to exert a lateral force on said exterior sheet such that said inflatable bladder is maintained substantially wrinkle-free when applied to a human foot.

2. The medical device as recited in claim 1, wherein said inflatable bladder comprises at least a portion of said interior sheet.

The medical device as recited in claim 1, wherein said inflatable bladder is formed between said interior sheet and said exterior sheet, said inflatable bladder consisting essentially of a portion of said interior sheet, a portion of said exterior sheet and an inlet for inflation thereof.

- 4. The medical device as claimed in claim 3, wherein said inlet comprises a tubular fluid connector opening into said inflatable bladder and suitable for connecting said inflatable bladder in fluid communication with a source of pressurized fluid for cyclical application of fluid pressure to a human foot.
- 5. The medical device as recited in claim 3, wherein said portion of said interior sheet and said portion of said exterior sheet are perimetrically sealed to form said inflatable bladder.
- 6. The medical device as recited in claim 5, wherein said inflatable bladder is formed by heat-welding said interior sheet to said exterior sheet.
- 7. The medical device as recited in claim 3, wherein said interior sheet comprises a vapor permeable construction.

8. A medical device adapted for use with cyclical application of fluid pressure to apply said pressure to a human foot, said medical device comprising:

an interior elastic fabric sheet for engaging a human foot;

an exterior fabric sheet that is less extensible than said interior fabric sheet, the exterior fabric sheet being joined with said interior sheet in a manner forming a foot wrap having an integral bladder formed between said interior sheet and said exterior sheet;

a first tab for releasably securing said foot wrap to a human foot by wrapping around the arch; and

an elongate second tab for releasably securing said foot wrap to a human foot by wrapping around the heel.

- 9. The medical device as recited in claim 8, wherein said second tab is generally perpendicular to said first tab when said foot wrap is laid flat.
- 10. The medical device as recited in claim 9, said medical device further comprising a third tab, said third tab being generally opposed to said first tab.
 - 11. The medical device as recited in claim 10 wherein:

said exterior sheet consists essentially of a hook-type connector compatible base material;

said first tab comprises a first releasable hook-type connector permanently attached to an inner surface of a distal end thereof, said first and third tabs having